PIONEER

Pioneer Energy Services

GAMMA RAY CCL CEMENT BOND VDL SECTOR MAP

Company	Noble Energy
Well	Wells Ranch AA21-67-1HN
Field	Wattenberg
County	Weld
State	Colorado
Country	USA

Company Noble Energy
Well Wells Ranch AA21-67-1HN
Field Wattenberg
County Weld
State Colorado Country USA

Location: API # : 05-123-37724-0000
1637' FNL & 421' FEL
SENE
SEC 21 TWP 6N RGE 63W

Other Services
None

Permanent Datum GL Elevation 4727
Log Measured From KB
Drilling Measured From KB

Elevation
K.B. 4751
D.F. 4750
G.L. 4727

Date	January 29, 2014
Run Number	1
Depth Driller	6728
Depth Logger	6728
Bottom Logged Interval	0
Top Log Interval	8-3/4"
Open Hole Size	Drilling Mud
Type Fluid	9.2 / 37
Density / Viscosity	NA
Max. Recorded Temp.	
Estimated Cement Top	
Time Well Ready	
Time Logger on Bottom	0730
Equipment Number	48
Location	Brighton, CO
Recorded By	Clint Christensen
Witnessed By	Robert Nicholes

Borehole Record

Run Number	Bit	From	To

Tubing Record

Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String				
Production String	7"	23 lbs	0	6856'
Liner				

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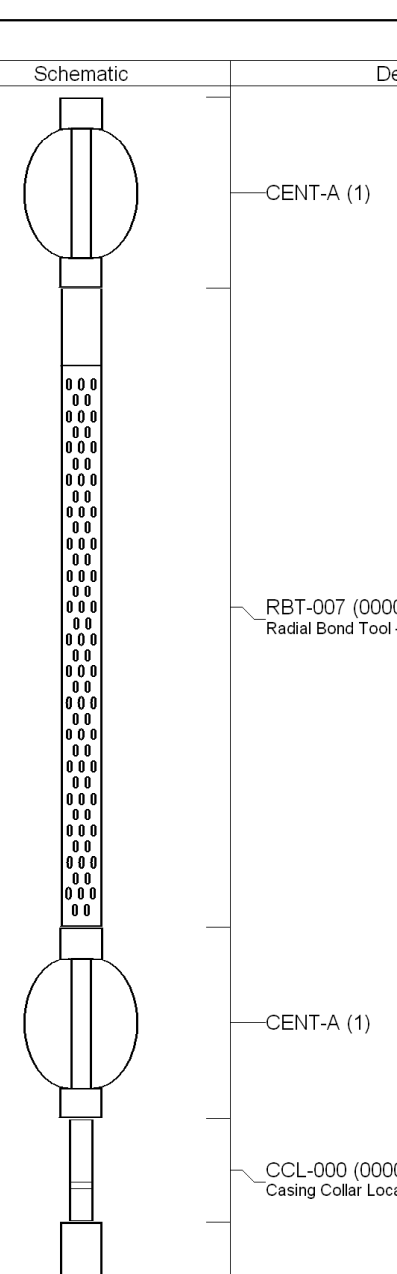
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

Thank You for using Pioneer Energy Services
H & P Drilling Rig



Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CENT-A (1)	2.83	2.75	20.00
WVF3FT WVFCAL WVFS1 WVFS2 WVFS3 WVFS4 WVFS5 WVFS6 WVFS7 WVFS8 WVF5FT	14.51 14.51 14.51 14.51 14.51 14.51 14.51 14.51 14.51 14.51 13.51	RBT-007 (000001) Radial Bond Tool - Analog 3 1/8	9.47	3.13	140.00
		CENT-A (1)	2.83	2.75	20.00
CCL	5.54	CCL-000 (000001) Casing Collar Locator	1.54	1.69	9.00
GR	4.00	GR-SIEGRN (0004SIE-N)	5.00	3.13	75.00

Dataset: 13426.db: field/well/run1/MAIN
Total Length: 21.68 ft
Total Weight: 264.00 lb
O.D. 3.13 in

Database File: 13426.db
Dataset Pathname: MAIN
Presentation Format: scbl02
Dataset Creation: Wed Jan 29 11:21:27 2014
Charted by: Depth in Feet scaled 1:240

Calibration Report

Database File: 13426.db
Dataset Pathname: MAIN
Dataset Creation: Wed Jan 29 11:21:27 2014

Gamma Ray Calibration Report

Serial Number: 0004SIE-N
Tool Model: SIEGRN
Performed: Wed Jan 29 07:15:07 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 000001
Tool Model: 007

Calibration Casing Diameter: 4.500 in
Calibration Depth: 0.000 ft

Master Calibration, performed Wed Jan 29 07:16:18 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	-0.025	0.595	0.000	81.196	60.034	1.835
5FT	-0.024	0.731	0.000	81.196	107.629	2.561
S1	-0.025	0.574	0.000	100.000	98.171	2.903
S2	-0.025	0.557	0.000	100.000	95.407	2.791
S3	-0.025	0.548	0.000	100.000	96.074	2.789
S4	-0.025	0.576	0.000	100.000	96.580	2.753
S5	-0.025	0.595	0.000	100.000	99.156	2.906
S6	-0.025	0.609	0.000	100.000	101.291	2.906
S7	-0.024	0.625	0.000	100.000	97.188	2.822
S8	-0.024	0.596	0.000	100.000	77.001	2.301